

INVESTIGATION OF DYNAMIC INVOLVED IN DETERMINATION OF CAPITAL STRUCTURE OF KARUR VYSYA BANK, INDIA

Bekele Abraham Diro

Head, Department of Banking and Finance,
Aksum University, Aksum, Ethiopia

ABSTRACT

An appropriate capital structure is a critical decision for any business organization to be taken by business organization for maximization of shareholders wealth and sustained growth. The main objectives this study was investigating the determinants of capital structure of the selected private Bank in India. Thus, the major focus of this study was to investigate empirically firm specific factors such as, Size, Tangibility, Profitability, Dividend Payout Ratio, Taxation, and Risk. In this study, only secondary data was used. The data collected from the annual report published by the Bank.

Key words: Capital Structure, Banking Sector, Determinants, Leverage and Profitability

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1. INTRODUCTION

Capital composition matters to most firms in free markets, but there are differences. Companies in non-financial industries need capital mainly to support funding such as to buy property and to build or acquire production facilities and equipment to pursue new areas of business. While this is also true for banks, their main focus is somewhat different. By its very nature, banking is an attempt to manage multiple and seemingly opposing needs. Banks provide liquidity on demand to depositors through the current account and extend credit as well as liquidity to their borrowers through lines of credit. Owing to these fundamental roles, banks have always been concerned with both solvency and liquidity. Given the central role of market and credit risk in their core business, the success of banks depend on their ability to identify, assess, monitor and manage these risks in a sound and sophisticated way. Competitive and regulatory pressures are likely to reinforce the central strategic issue of capital and profitability and cost of equity capital in shaping banking strategy.

In order to assess and manage risks, banks must have effective ways of determining the appropriate amount of capital that is necessary to absorb unexpected losses arising from their market, credit and operational risk exposures. In addition to this, profits that arise from various business activities of the banks need to be evaluated relative to the capital necessary to cover the associated risks. These two major links to

capital – risk as a basis to determine capital and the measurement of profitability against risk-based capital allocations – explain the critical role of capital as a key component in the management of bank portfolios.

The capital structure of banks is, however, still a relatively under-explored area in the banking literature. Currently, there is no clear understanding on how banks choose their capital structure and what factors influence their corporate financing behavior. Mostly lending in large banks is less subject to changes in cash flow and capital. It also identified that shifts in deposit supply affect lending at small banks that do not have access to the large internal capital market.

The fact is that large banks tend to decrease their capital and increase their lending after mergers. Bank size seems to allow banks to operate with less capital and, at the same time, engage in more lending. Majority of the assets of listed firms in India are financed by debt and that there is a correlation between debt ratio and firm size, growth, asset tangibility, risk, and corporate tax. Given the unique financial features of banks and the environment in which they operate, there are strong grounds for a separate study on capital structure determinants of banks.

2. OVERVIEW OF BANK IN INDIA

As per the Reserve Bank of India (RBI), India's banking sector is sufficiently capitalised and well-regulated. The financial and economic conditions in the country are far superior to any other country in the world. Credit, market and liquidity risk studies suggest that Indian banks are generally resilient and have withstood the global downturn well. Indian banking industry has recently witnessed the roll out of innovative banking models like payments and small finance banks. The central bank granted in-principle approval to 11 payments banks and 10 small finance banks in FY 2015-16. RBI's new measures may go a long way in helping the restructuring of the domestic banking industry.

The Indian banking system consists of 26 public sector banks, 25 private sector banks, 43 foreign banks, 56 regional rural banks, 1,589 urban cooperative banks and 93,550 rural cooperative banks, in addition to cooperative credit institutions. Public-sector banks control nearly 80 percent of the market, thereby leaving comparatively much smaller shares for its private peers. Banks are also encouraging their customers to manage their finances using mobile phones

3. THEORIES ON CAPITAL STRUCTURE

The theoretical principles underlying the capital structure, financing and lending choices of firms can be described either in terms of a static trade-off choice or pecking order framework. The static trade-off choice encompasses several aspects, including the exposure of the firm to bankruptcy and agency cost against tax benefits associated with debt use.

Bankruptcy cost is a cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. One of the bankruptcy costs is liquidation costs, which represents the loss of value as a result of liquidating the net assets of the firm. This liquidation cost reduces the proceeds to the lender, should the firm default on finance payments and become insolvent. Given the reduced proceeds, financiers will adjust their cost of finance to firms in order to incorporate this potential loss of value. Firms will, therefore, incur higher finance costs due to the potential liquidation costs (Cassar and Holmes, 2003).

Another cost that is associated with the bankruptcy cost is distress cost. This is the cost a firm incurs if non-lending stakeholders believe that the firm will discontinue. If a business is perceived to be close to bankruptcy, customers may be less willing to buy goods and services due to the risk of a firm not being able to meet its warranty obligations. In addition, employees might be less inclined to work for the business and suppliers less likely to extend trade credit. These stakeholders' behaviour effectively reduces the value of the firm.

Therefore, firms which have high distress cost would have incentives to decrease debt financing so as to lower these costs. Given these bankruptcy costs, the operating risk of the firm would also influence the capital structure choice of the firm because firms which have higher operating risk would be exposed to

higher bankruptcy costs, making cost of debt financing greater for higher risk firms. Research has found that high growth firms often display similar financial and operating profiles (Hutchinson and Mengersen, 1989).

Debt financing may also lead to agency costs. Agency costs are the costs that arise as a result of a principal-stakeholder relationship, such as the relationship between equity-holders or managers of the firm and debt holders. Myers and Majluf (1984) showed that, given the incentive for the firm to benefit equity-holders at the expense of debt holders, debt-holders need to restrict and monitor the firm's behaviour. These contracting behaviours increase the cost of capital offered to the firm. Thus, firms with relatively higher agency costs due to the inherent conflict between the firm and the debt-holders should have lower levels of outside debt financing and leverage.

Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. This benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after-tax proceeds to the owner. The theory among other things predicts a positive relationship between tax and leverage.

The pecking order theory suggests that firms have a particular preference order for capital used to finance their businesses (Myers, 1984). Owing to the presence of information asymmetries between the firm and potential financiers, the relative costs of finance vary between the financing choices. Where the funds provider is the firm's retained earnings, meaning more information than new equity holders, the new equity holders will expect a higher rate of return on capital invested resulting in the new equity finance being more costly to the firm than using existing internal funds.

A similar argument can be provided between the retained earning and new debt-holders. In addition, the greater the exposure to the risk associated with the information asymmetries for the various financing choices besides retained earnings, the higher the return of capital demanded by each source. Thus, the firm will prefer retained earnings financing to debt, short-term debt over long-term debt and debt over equity.

4. THEORETICAL FRAMEWORK OF BANK CAPITAL STRUCTURE DETERMINANTS

1. Profitability

Corporate performance has been identified as a potential determinant of capital structure. The tax trade-off models show that profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk (Ooi, 1999). However, Myers (1984) prescribes a negative relationship between debt and profitability on the basis that successful companies do not need to depend so much on external funding. They, instead, rely on their internal reserves accumulated from past profits. Titman and Wessels (1988) and Barton (1989), agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources. Empirical evidence from previous studies (Chittenden 1996; Coleman and Cole, 1999; Al-Sakran, 2001) appears to be consistent with the pecking order theory. Most studies found a negative relationship between profitability and debt financing.

2. Growth Rate

Applying pecking order arguments, growing firms place a greater demand on their internally generated funds. Consequentially, firms with high growth will tend to look to external funds to finance the growth. Firms would, therefore, look to short-term, less secured debt then to longer-term more secured debt for their financing needs. Myers (1977) confirms this and concludes that firms with a higher proportion of their market value accounted for by growth opportunity will have debt capacity.

Auerbach (1985) also argues that leverage is inversely related to growth rate because the tax deductibility of interest payments is less valuable to fast growing firms since they usually have non-debt tax shields.

Michaelas (1999) found future growth positively related to leverage and long-term debt, while Chittenden (1996) and Jordan (1998) found mixed evidence

3. Tax Charge

Different authors on capital structure have given different interpretations of the impact of taxation on corporate financing decisions in the major industrial countries. Some are concerned directly with tax policy. For instance Auerbach (1985), MacKie-Mason (1990), etc. studied the tax impact on corporate financing decisions. The studies provided evidence of substantial tax effect on the choice between debt and equity. They concluded that changes in the marginal tax rate for any firm should affect financing decisions. A firm with a high tax shield is less likely to finance with debt.

The reason is that tax shields lower the effective marginal tax rate on interest deduction. Graham (1996) on his part concluded that, in general, taxes do affect corporate financial decisions, but the extent of the effect is mostly not significant.

Ashton (1991) confirms that any tax advantage to debt is likely to be small and thus have a weak relationship between debt usage and tax burden of firms. De Angelo and Masulis (1980) on the other hand, show that depreciation, research and development expenses, investment deductions, etc. could be substitutes for the fiscal role of debt. Titman and Wessels (1988) provided that, empirically, the substitution effect has been difficult to measure as finding an accurate proxy for tax reduction that excludes the effect of economic depreciation and expenses is tedious.

4. Dividend Payout

The bankruptcy costs theory pleads for adverse relation between the dividend payout ratio and debt level in capital structure. The low dividend payout ratio means increase in the equity base for debt capital and low probability of going into liquidation. As a result of low probability of bankruptcy, the bankruptcy cost is low. According to the bankruptcy cost theory, the low bankruptcy cost implies the high level of debt in the capital structure. But the pecking order theory shows the positive relation between debt level and dividend payout ratio Titman and Wessels (1988). According to this theory, management prefers the internal financing to external one. Instead of distributing the high dividend, and meeting the financial need from debt capital, management retains the earnings. Hence, the lower dividend payout ratio means the lower level of debt in capital structure

5. Business Risk

Given agency and bankruptcy costs, there are incentives for the firm not to utilize the tax benefit of debt within the static framework model. As a firm is exposed to such costs, the greater its incentive to reduce its level of debt within its capital structure. One firm variable which impacts upon this exposure is firm operating risk, in that the more volatile a firm's earnings streams, the greater the chance of the firm defaulting and being exposed to such costs. Firms with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms. Empirical evidence suggests that there is a negative relationship between risk and leverage of small firms (Ooi, 1999; Titman and Wessels, 1988).

6. Size

Size plays an important role in determining the capital structure of a firm. Researchers have taken the view that large firms are less susceptible to bankruptcy because they tend to be more diversified than smaller companies (Smith and Warner, 1979; Ang and McConnel, 1982). Following the trade-off models of capital structure, large firms should accordingly employ more debt than smaller firms. According to Berryman (1982), lending to small businesses is riskier because of the strong negative correlation between the firm size and the probability of insolvency. Hall (1995) added that, this could partly be due to the limited portfolio management skills and partly due to the attitude of lenders. Marsh (1982) and Titman and Wessels (1988) report a contrary negative relationship between debt ratios and firm size. Marsh (1982) argues that small

companies, due to their limited access to equity capital market tend to rely heavily on loans for their funding requirements. Titman and Wessels (1988) further posit that small firms rely less on equity issue because they face a higher per unit issue cost.

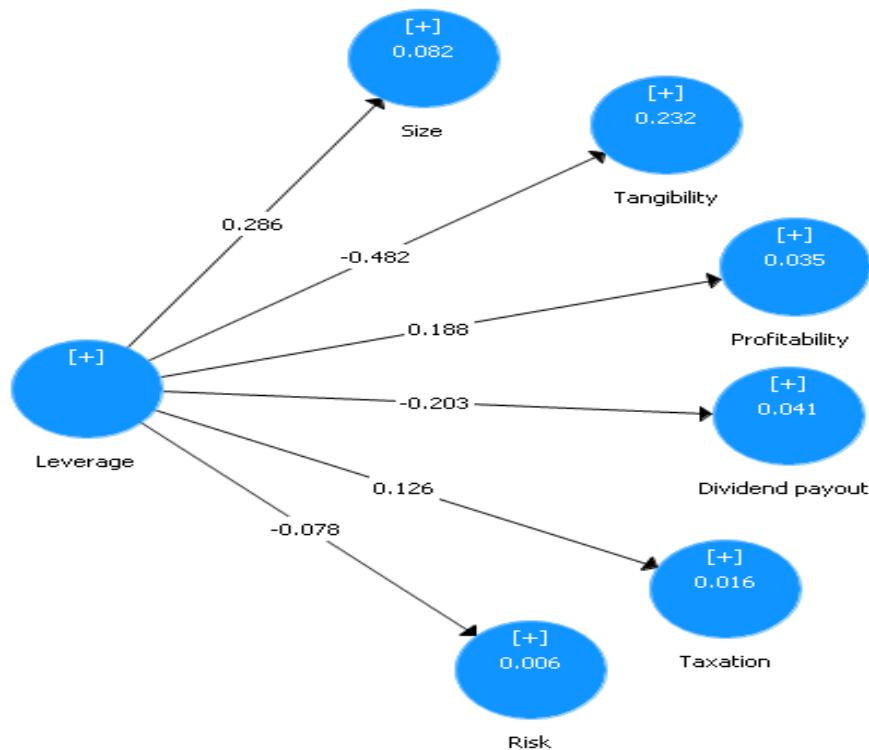
7. Tangibility

Due to the conflict of interest between debt providers and shareholders (Jensen and Mekling, 1976), lenders face risk of adverse selection and moral hazard. Consequently, lenders may demand security, and collateral value (proxied by the ratio of fixed to total assets) may be a major determinant of the level of debt finance available to companies (Scott (1977), Stiglitz and Weiss (1981), Williamson (1988) and Harris and Raviv (1990)). The degree to which firms' assets are tangible and generic should result in the firm having a greater liquidation value. Capital intensive companies will relatively employ more debt (Myers, 1977), as pledging the assets as collateral (Myers, 1977; Harris and Raviv, 1991) or arranging so that a fix charge is directly placed to particular tangible assets of the firm. Bank financing will depend upon whether the lending can be secured by tangible assets (Storey, 1994; Berger and Udell, 1998).

5. METHODOLOGY

The study examines the determinants of capital structure of Karur Vysya Bank (KVB), Tamilnadu, India. The Bank carries with it tradition of 99 years and yet is young enough to adopt itself to the rapidly changing scenario in the Banking industry. Karur Vysya Bank was started in the year 1916 in Karur, then a small textile town with a vast agricultural background, by two illustrious sons of the soil – Sri M.A. Venkatarama Chettiar and Sri Athi Krishna Chettiar. What started as a venture with a seed capital of Rs. 1.00 lakh has grown into a leading financial institution that offers a gamut of financial services to millions of its customers under one roof. The data was collected from Karur Vysya Bank. The proposed period was from 2006-07 to 2015-16. The study considered Size (natural log of Total Asset), Tangibility, Profitability, Dividend payout, Taxation and Risk as Dependent Variables and Leverage as Independent Variable.

MODELING KVB BANK LEVERAGE BASED ON SIZE, TANGIBILITY, PROFITABILITY, DIVIDEND PAYOUT, TAXATION, RISK



Model Output: Results and Discussion

Explanatory Variable	Coefficient	R ²	t-Statistics	Prob
Size	0.286	0.082	Above 1.96	0.05
Tangibility	-0.482	0.232	Above 1.96	0.05
Profitability	0.188	0.035	Above 1.96	0.05
Dividend Payout Ratio	-0.203	0.041	Above 1.96	0.05
Taxation	0.126	0.016	Above 1.96	0.05
Risk	-0.078	0.006	Above 1.96	0.05

Size with a coefficient of 0.286 is also significant at 0.05% as well as exhibiting a positive relationship with Bank Leverage ratio thereby supporting the findings of Remmers (1974) on the basis of the Bankruptcy Cost Theory that large firms are more diversified and as such, have easy access to the capital market, receive higher credit ratings for debt issues, and pay lower interest rate on debt capital hence they are less prone to bankruptcy.

Tangibility shows a negative coefficient -0.482, also significant at 0.05%. For Tangibility, this is expected as supported by the findings of Hutchinson and Hunter (1995) that Tangible assets by impacting on financial leverage augments risk through the increase of operating leverage

Profitability shows a positive coefficient 0.188 and significant at 0.05%. This result supports with Barton (1989), agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources.

Dividend Payout with a coefficient given at -0.203 is statistically significant at 1% and negatively related to Leverage. The result shows that banks management does not prefers the internal sources of financing to external one but only have to resort to external financing when there is the need for expansion as such, lower dividend payout ratio means the lower level of debt in capital structure.

Taxation shows a positive coefficient 0.126 and significant at 0.05%. Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. This benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after-tax proceeds to the owner.

Risk shows a negative coefficient -0.078, also significant at 0.05%. As for Risk, findings find support in the agency and bankruptcy cost theories which suggests that the greater the chance of a business failure, the greater will be the weight of bankruptcy costs on enterprise financing decisions and as the probability of bankruptcy increases, the agency problems related to debt become more aggravating (Taggart 1985). The finding shows that Banks leverage is positive with Size, Profitability and Taxation. At the same time Bank leverage is negative with Tangibility, Dividend Payout Ratio, and Risk.

6. CONCLUSION

In conclusion, the empirical evidence from this study suggests that profitability, corporate tax, and bank size are important variables that influence banks' capital structure of KVB Bank, India. These results are consistent with the theories developed in finance to explain capital structure within the firm, including static trade-off arguments utilizing bankruptcy, agency and tax costs and pecking order arguments. However, there is no support of banks' risk influencing the level of leverage of banks.

REFERENCE

- [1] Ang, J.J. and McConnel, J. (1982), "The administrative cost of corporate bankruptcy: a note", Journal of Finance, Vol. 37, pp. 219-26.
- [2] Auerbach, A.J. (1985), "Real determinants of corporate leverage", in Friedman, B.M. (Ed.), Corporate Capital Structure in the United States, University of Chicago Press, Chicago, IL, pp. 301-24
- [3] Barton, S.L., Hill, N.C. and Srinivasan, S. (1989), "An empirical test of stakeholder theory predictions of capital", Financial Management, Vol. 18 No. 1, pp. 36-44.
- [4] Cassar, G. and Holmes, S. (2003), "Capital structure and financing of SMEs: Australian evidence", Accounting and Finance, Vol. 43, pp. 123-47.
- [5] Cassar, G. and Holmes, S. (2003), "Capital structure and financing of SMEs: Australian evidence", Accounting and Finance, Vol. 43, pp. 123-47.
- [6] Chittenden, F., Hall, G. and Hutchinson, P. (1996), "Small firm growth, access to interest on corporate capital structure", Journal of Finance, Vol. 43, pp. 271-81.
- [7] Graham, J.R. (1996), "Debt and the marginal tax rate", Journal of Financial Economics, Vol. 41, pp. 41-73.
- [8] Harris, M. and Raviv, A. (1991), "The theory of capital structure", Journal of Financial Economics, Vol. 41, pp. 297-355.
- [9] Hutchinson, P. and Mengersen, K. (1989), "The financial profile of growth firms", working paper, University of New England, Armidale, New South Wales.
- [10] Jordan, J., Lowe, J. and Taylor, P. (1998), "Strategy and financial policy in UK small firms", Journal of Business Finance & Accounting, Vol. 25, pp. 1-27.
- [11] Michaelas, N., Chittenden, F. and Poutziouris, P. (1999), "Financial policy and capital structure choice in UK SMEs: empirical evidence from company panel data", Small Business Economics, Vol. 12, pp. 113-30.
- [12] Myers, S.C. and Majluf, N. (1984), "Corporate financing and investment decisions when firm have information that investors do not have", Journal of Financial Economics, Vol. 13, pp. 187-221.
- [13] Ooi, J. (1999), "The determinants of capital structure: evidence on UK property companies", Journal of Property Investment & Finance, Vol. 17 No. 5, pp. 464-80.
- [14] Smith, C.W. and Warner, J.B. (1979), "Bankruptcy, secured debt, and optimal capital structure: comment", Journal of Finance, Vol. 34 No. 1, pp. 247-51.
- [15] Dr. M. Parveen and Ms. S. Sameera. Problems and Challenges On Indian Banking Sector In Pre and Post Globalisation Period. International Journal of Management, 7(2), 2016, pp. 785-794
- [16] Prof. Suresh Kumar S, Dr. Joseph James V and Dr. Shehnaz S R, The Single Index Model – An Exoteric Choice of Investors In Imbroglio – An Empirical Study of Banking Sector In India. International Journal of Management, 7(5), 2016, pp. 210–222
- [17] Dr. Veena K.P and Prof. S.N. Patti, Financial Performance Analysis of Pre and Post Merger in Banking Sector: A Study with Reference To ICICI Bank Ltd. International Journal of Management, 7(7), 2016, pp. 240–249.
- [18] Titman, S. and Wessels, R. (1988). The Determinants of Capital Structure Choice. *Journal of Finance*, 43, pp. 1-19.
- [19] Van der Wijst, N. and Thurik, R. (1993), "Determinants of small firm debt ratios: an analysis of retail panel data", Small Business Economics